INTERDICTION OF RADIATION EMITTING MATERIAL (IREM)

A Revolutionary System developed by Los Alamos National Laboratory for homeland defense to protect against terrorist threats

Fully Integrated Features:

Unattended monitoring for radioactive material

Mobile platform, wireless data communications

Alarm events are logged and tracked

Alarm notification is sent to a ruggedized PDA

Mobile scanning for location of source

One minute isotopic identification of peaks

Photo ID provided by an onboard camera

Operator interface is via KIOSK type touch screen

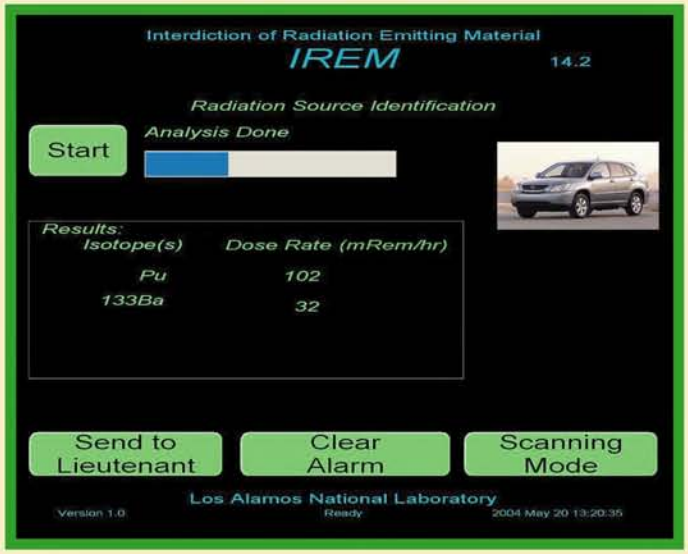
All systems run off a 12V deep-cycle battery bank

Operational 24/7 in -20 to 130°F temperatures

Results of alarm are logged to a base station

Unattended Monitoring and Alarming:

Alarm events are generated by the IREM operating in an unattended mode or sent to the unit by Portal type monitors. Each alarm is displayed with a picture of the vehicle and the date and time of the alarm. The operator will select an alarm to process or choose a new vehicle to add to the list. As alarms are processed, the status is updated. An onboard camera will take a high resolution picture of the vehicle triggering an alarm.



Isotopic Identification:

Using a one minute assay, the IREM will determine the isotopic content of the detected source. The source will be categorized as one of four types: medical, industrial, natural or special nuclear material (SNM). The relative strength of the source will also be displayed in mR/hr.

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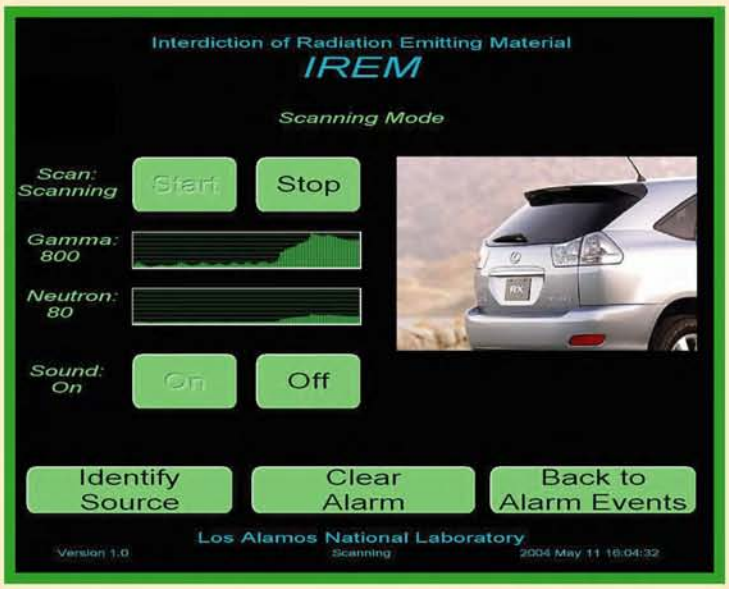
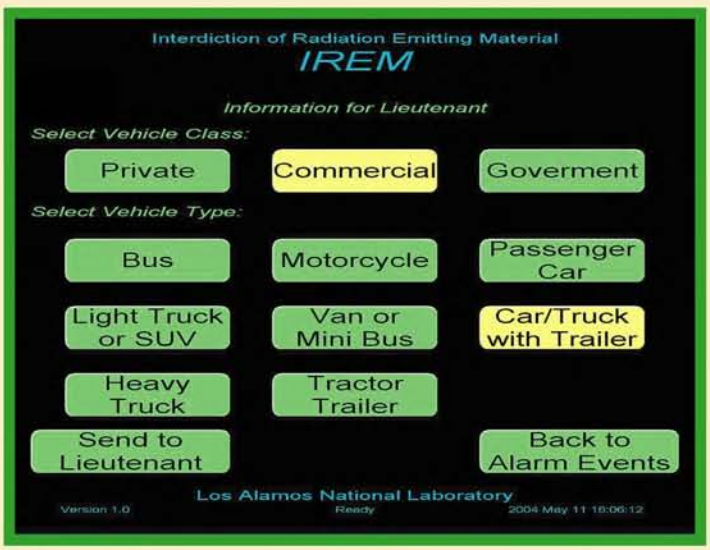
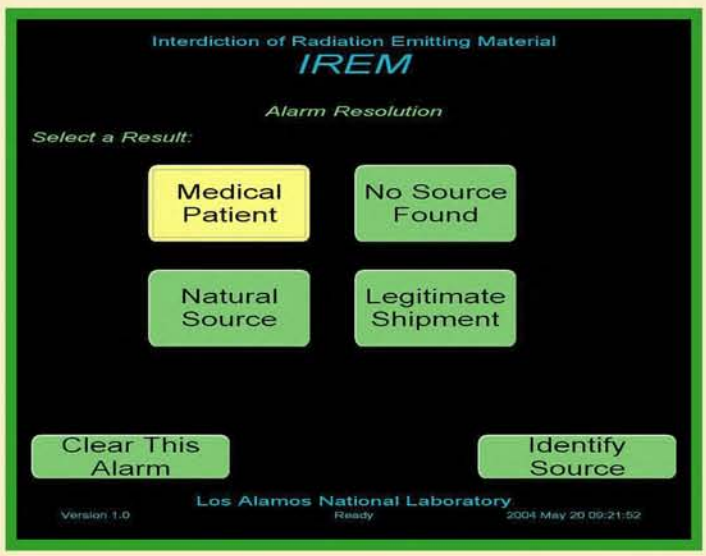


Scanning search mode:
The IREM system has audible and visual clues to aid the operator in locating sources. The operator can drive the utility truck around a long vehicle and search for the location of the source. The lift bed can be raised up to 7 ft. to aid in locating the source.

Results are logged to a base station:

Every alarm is logged and the outcome of each alarm is recorded for future data analysis. Spectral data are saved, along with information on the vehicle class and type. A wireless link is used to send the data to the base station.





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